

BULLETIN

3

2002

Web site of the
Ministry of Finance of the Republic of Macedonia
<http://www.finance.gov.mk/>

Web site of the
Public Revenue Office
<http://www.ujp.gov.mk/>

Web site of the
Macedonian Privatization Agency
<http://www.mpa.org.mk/>

Web site of the
Macedonian Stock Exchange
<http://www.mse.org.mk/>

Web site of the
Securities Exchange Commission
<http://www.sec.gov.mk/>

**MINISTRY OF FINANCE
REPUBLIC OF MACEDONIA**

Skopje, March 2002

HOW TO ACHIEVE MODERN AND COMPETITIVE ELECTRIC POWER INDUSTRY IN MACEDONIA

d-r Vlatko
CINGOVSKI

Vlatko Cingovski, PhD, was born in 1962 in Ohrid. He graduated and attained his MA title from the Faculty of Electronic Engineering, at the University "Ss. Cyril and Methodius" in Skopje in 1986 and 1990, respectively. In 1991, he left for Hiroshima, Japan, for his PhD studies, as scholar of the Japanese Government, where he attained his PhD degree in 1996 at the State University in Hiroshima. Since 1986 until his departure to Japan in March 1991, Cingovski worked at the Faculty of Electronic Engineering in Skopje as an assistant at the Electrical Machines and Transformers and Devises Bureau. In Japan, in parallel with the PhD studies, he worked at several state and interstate projects, and from 1996 to 1999 he was employed as associate professor at the State University in Hiroshima, Japan, at the System Engineering and Information Technology Division. Since April 1999, when he returned to Macedonia, Cingovski worked as an assistant general manager for development and investments in the Electric Power Company AD in Macedonia.

He is the author and co-author of over 60 international expert and academic works in the area of the electric energy and electric magnetics. He is an active member of several expert and scientific associations in the country and abroad. Cingovski is fluent in English and Japanese, and has certain knowledge in Russian language.

The need to reorganize and restructure Electric Power Company of the Republic of Macedonia is obvious from long ago, and therefore several studies have already been prepared, defining the possible directions and methods for more successful realization of these processes. This article presents global picture of the actual situation of the Electric Power Company of the Republic of Macedonia, reviewing certain considerations aimed towards more successful restructuring of the Electric Power Company of the Republic of Macedonia so as to improve its efficiency, increase competitiveness and prepare the ground for its successful privatization

1. Introduction

One of the most frequently mentioned topics in the contemporary economic discussions in the Republic of Macedonia is of course the restructuring, liberalization and privatization of the public sectors in the country. Taking into account the importance these enterprises in the public sector area have (telecommunications, electric power, water economy, etc.) in the everyday life of the citizens, it is not surprising nor negligible at all for the most ordinary citizen to be interested in these, for us, new economic processes in the county. Therefore, various and unfortunately most often arbitrary information on the objectives of these processes as well as on the results and the advantages they bring in the area of rendering services of public interest for the citizens mislead the common readers.

I will try in this text to summarize several considerations on the possible paths and methods for restructuring one of these public sectors, the electric power sector and its performer Joint Stock Company Electric Power

Company of the Republic of Macedonia (ESM), in order to show that the fear of these new processes is natural and expected, and at the same time irrational and superfluous. I will try to make a hypothetical speculation regarding the manners and the processes that could be part of some imagined scenario for ESM Joint Stock Company restructuring and privatization. Simultaneously, I will also try to anticipate the problems to emerge on that path and to define what at least part of the advantages such complex and extremely sensitive process can bring to, first of all, the electrical and energy sector, the ESM Joint Stock Company and finally, indirectly to the whole economy in the country.

2. Commercial features of the electricity

By discovering electric energy (EE), and even more by its mass usage at the beginning of this century, it has sooner become one of the most attractive energy sources in the world. Due to its simplicity in usage, the possibility to transfer it on long distances, the environmental safety in application, and, of



*The views expressed are those of the author and do not necessarily represent those of the Ministry of Finance

course, the possibility for broad diffusion, very fast the electricity has become irreplaceable component in the world industrialization. Construction of even greater number of electric power plants and the improvement of the electric devices have become imperative in many countries, and are process which is active today as well. Therefore, it is not wonder that today, the quantity of consumed electricity per capita is one of the electric power analysis parameter as well as the quantity of the consumed electricity per unit of realized dollar from the national gross product.

These and such processes are also inevitably linked with the development of our country, especially with the strong economic development following the Second World War. The need for electrification of all inhabited places in the country as well as the constant efforts for providing and supplying sufficient quantities of high-quality electricity for the whole population was and still is one of the priorities in the development of our country. However, on the other hand, maybe it is most important to point out the fact that during all these processes, EE was treated as public good, or even simpler said, as social category. Developed countries have realized even from long ago that EE, as well as all other goods, has its value on the market as a result of the production process and the needed engaged funds for its production, transfer, power engagement, distribution, development and investments, covering the losses in the transfer and the distribution, etc. By such redefining the basic feature of the EE from social category into goods, qualitative and respectively quantitative leap has been made in economic parameters of estimating EE as being the most sophisticated energy source at the moment. We should emphasize here that in our country these processes of transforming the treatment of electricity from social category into category goods with defined market value determined with the help of what is known as pricing methodology, in a way have already commenced by including them into our Law on Energetics. Not many countries from what is known as group of countries in transition (transition from system of planned economy into system of market economy) can vaunt with such law. However, it is, of course, only a beginning towards the real objective of full transformation and restructuring of the electric and energy system in the Republic of Macedonia.

3. Actual situation and problems

ESM faces every day

In order to be able to define the directions of development and restructuring of the electric and energy sector in the

Republic of Macedonia, we should first of all review its actual situation. Joint Stock Company Electric Power Company of the Republic of Macedonia, fully state-owned, is the only enterprise within the country established by the Government of the Republic of Macedonia having one goal which is production, transfer and distribution of electricity on the whole territory of the country. Total production capacities of ESM comprise around 1,500 MW, around 1/3 of which are located in hydro plants, whether they are big or small, while the rest 2/3 of the capacities are in thermo plants, in which REK Bitola, with its 3x225MW is the biggest and highly concentrated source of EE in the state. The main transmission net comprises 400 kV and 110 kV electrical ducts throughout the whole country, while the distribution of energy is realized through 28 separate units (branches) with almost 33% of the total consumption of EE in Macedonia. In addition to the households, which prevail, almost 50% of the overall energy consumption in the distribution or together with the small industry and the craftsmanship, the consumers of 10 and 35 kV level and the street

In the Republic of Macedonia, these processes of transforming the treatment of electricity from social category into category goods with defined market value (determined with the help of what is known as pricing methodology), in a way have already commenced by including them into our Law on Energetic. Not many countries from what is known as group of countries in transition

lighting take almost 80% of the distributive consumption, while the rest 20% goes to what is known as direct consumers that, most frequently, are connected to 110 kV electrical ducts. Annual production amounts to around 6,700 GWh, which shown as annual financial turnover amounts to around EUR 250 million. In addition, it is important to point out that ESM has around 650,000 users and a bit less than 9,000 employees.

As it can be seen, ESM is an industrial giant in Macedonia. Taking into account the contemporary trends in the electric and energetic systems of the other countries in transition as well as the West European countries, it can be immediately noted that electric energy has important upsurge, and that the changes in this sector are everyday and significant. It is normal to conclude that such changes cannot pass unnoticed, especially due to the fact that all electric energy systems are mutually linked and work on daily basis as one joint parallel system. Therefore, quality and timely restructuring and adjustment of our electric energy system to

the modern world manner of operations is necessary in conditions of market economy and economic dependencies such as supply, demand, real EE prices, quality, direct negotiations with the big consumers, regular supply and collection of EE, opening room for private initiative and foreign investments, competitiveness, etc. These processes have to expand and to deeply enter all pores of the operations of ESM, should we really want to have stable and long-lasting electric power industry as secure pre-condition for the development of the whole economy. We would like to add at the end, the electricity market liberalization processes on the whole Balkan region, the establishment of what is known as Electricity Regional Market according to the Agreement in September 1999 signed in Thessaloniki as well as the European Union Regulation 96/92 Macedonia has to meet should it want to take its place in Europe where it naturally belongs, the aforementioned changes are inevitable. On the contrary, it may appear for the electric energy sector in Macedonia to encounter all these processes and not to be able to give its real potential for new competitive conditions of operations.

Maximization of privatization proceeds is not by chance on the third place, since during the privatization process, it must not be, at any cost, insisted on and one must not advocate the wrong thesis that successful privatization is always the one that will generate more money. Experience throughout the world shows that we must not be limited solely on maximizing privatization proceeds. On the contrary, it is much more important for the privatization process itself to lead to new quality in the entire electric energy system and its development, or as it is often called, which business plan the future strategic partner uses to enter the privatization itself

4. Why and what kind of restructuring does ESM need?

In order to move towards restructuring and reorganization of ESM, it is necessary to first define the objectives to be achieved. Otherwise, both the reorganization and the restructuring lose their main purpose and sense. As main objectives of a deep and comprehensive reorganization of ESM, we will mention the following ones:

- Provision of confidential and secure power input with EE for all consumers with minimal operating costs;
- Increasing efficiency in providing EE and protection of interests of all EE users;

- Improvement of management/administration in the whole electric energy sector;
- Building pre-conditions for introduction of EE Open Market and encouraging competition so as to increase private investment in the electric energy sector;
- Approximating domestic legislation to the one of the European Union in the electric energy sector, fully implementing the European Directive for the electricity market 96/92;
- Preparing the field for successful completion of the ESM privatization process.

The aforementioned shows that for the purpose of meeting these requirements, it is necessary to realize the following two activities:

1. De-monopolization of the EE market in the state, and
2. Creation of conditions for smooth competition of all participants on the EE market, such as the producers, the distributors and the consumers.

All other objectives would be realized after meeting the two aforementioned ones, gradually with the revival of the EE market and the commencement of the functioning of its economic legalities.

Now, after having somewhat defined the need and the objectives for a full reorganization of ESM, logical question is posed regarding the type of model to be applied for the reorganization, or to be more precise, which of the popular world models would be the most acceptable for the electric energy system of Macedonia from both technical and technological and economic aspect?

Taking into account the available energy capacities of our electric energy system, its geographic distribution, as well as the distribution of the available power per energy sources, it seems that the model of the so called Vertically Integrated Enterprise (VIE) is the most acceptable for ESM. VIE is nothing else but an enterprise that simultaneously performs several basic production activities - in our case, production, transmission and distribution. One will immediately notice that the way it is organized at the moment, ESM A.D. is already VIE. It is quite true, but the essence lays not within the form, but rather in its structure. Actually, newly established VIE must not have what is known as *overlapping of accounts*, i.e. each segment in the future VIE has to have own financial operations that exclude covering of losses of one activity with the profit of another. What is also very

important is that there have to be what is known as *regulations* that define *the rules of the game* for all players in the game called electric energy system! If somebody wants to appear as active member in any domain of the market, he has to know and apply the rules of the game, which have to be precisely and uniformly determined by introducing appropriate regulations. These regulations also require precise defining of prices for each segment from the chain called production, transfer and distribution of EE. Therefore, the producers should have defined price of the produced EE, the price they sell it to the buyer (this buyer most often is the transfer net), which by adding its price for transfer of EE defines the EE price at the threshold of the distributor (so called wholesale price). Finally, the distributive company itself defines the EE price per kWh for the final consumers, on the basis of own expenses for distribution of the already wholesale bought EE to each beneficiary. Thus, each participant in the chain called EE supply incorporates the real expenses of its operations, increased of course by appropriate profit from the operations.

Why is it important for ESM to become VIE? First of all due to the following main reasons:

1. ESM is too small economic entity in order for it to be divided into special production units or enterprises. Its division can have adverse effect over both the quality and the safety of supplying the beneficiaries with EE and the reduction of the value of the enterprise in the case of its possible privatization.

2. Existence of dominant EE producers as in our case would lead us to a situation of monopolistic behaviour by a big source over the other small EE sources. It also leads to dictating unreal high prices, monopolistic behaviour and, what is worst, in case of its possible privatization, it leads to creation - replacement of a state-owned monopoly with new private monopoly, without existence of mechanisms for appropriate regulations.

As a result of all this, it is very important to adopt appropriate regulations before starting the ESM reorganization and privatization process itself.

Another model, which is closer to the already listed one and which is possible and interesting to analyze, is ESM reorganization in what is known as Holding Company with several separate enterprises with special tasks within the holding. For instance, it might be that the most appropriate reorganization for ESM Joint Stock Company is the one by

establishing Holding Company - ESM that would consist of the following enterprises:

1. **ESM - Hydro:** Hydro-Energy Production Enterprise;
2. **ESM - Thermo:** Thermo-Energy Production Enterprise;
3. **ESM - Trans:** Enterprise for EE transfer;
4. **ESM - Distribution:** Enterprise for EE distribution;
5. **ESM - Other:** Enterprise that would overtake the other services currently rendered by ESM (for example: hotels, resorts, and similar).

This manner of reorganization is interesting because it enables various accesses of capital in the privatization process. For instance, part of the transfer for the hydro energy, too, as elements of vital national and strategic importance for the state, can be privatized with minor part of shares - meaning the Government i.e. the state would keep the majority share package at these enterprises. In addition, due to the technological process of operations, insurance of what is known as variable reserve, frequent regulations, generating reactive power and similar, a solution is possible in

Taking into account the available energy capacities of our electric energy system, its geographic distribution, as well as the distribution of the available power per energy sources, it seems that the model of the so called Vertically Integrated Enterprise (VIE) is the most acceptable for ESM

which hydro-energy and the transfer net would be connected creating a joint enterprise with state-owned majority share package. Thermo-energy and distribution could be sold separately, but still taking into account the aforementioned.¹ Regarding distribution, it has to be said that the way it is divided at the moment, chances for its profitable operations are minimal and its grouping by regions is more than necessary and useful. We believe that three, maximum four distributive centers are quite enough for Macedonia, for instance, **Distribution - East, Distribution - West and Distribution - Skopje** as a separate one. Thus, not only efficiency of the operations will improve, but also the value of the distribution, maintenance and supply costs and net losses will reduce, and the possible buyer would be more interested in such distributions rather than in the ones we have at the moment. Finally, the rest of the activities that exist or will be possibly established in future, grouped in a special enter-

¹ This can be regulated in a similar way as in Poland and Hungary, where it is not allowed for same buyer to have the majority capital of bigger installed capacities, for instance same buyer of all three blocks in Bitola energy enterprise.

prise with expert personnel that can benefit from the services of ESM A.D. offered to the greatest extent possible, can be a great contribution to the financial state of the holding or of the enterprise itself as an entity.

Such successful holding can further on, depending on the aspirations and the needs of the state, expand and cover other activities as well, which are directly or indirectly related to energetics. For instance, following the contemporary energetics trends in the world, this holding can establish separate enterprise for sale, distribution and usage of gas, enterprise in the domain of the telecommunications - separately mobile telephony, Internet provider and/or renting fiber optic lines to other beneficiaries, establishment of own insurance company, establishment of appropriate scientific and technical institutions or institutes in the field of projecting and engineering that would finance themselves from rendering services to both the holding and third parties. It is obvious that such complex, and at the same time compact

Maintaining the present level of electric energy prices, underpinned with appropriate financial injection in the investment cycle, company administration and management improvement, increase in savings and efficiency of the operations are exactly the activities the ESM A.D. strives for when talking about successful privatisation

system, can be a very important entity in the economic system of the country and throughout the Balkans, even in Europe. Establishment of such modern and, mainly, competitive system in the electric energy sector ensures long-term stable and quality supply not only of EE, but also of other necessary energizers and services in the whole country. On the other hand, such ESM would also have increased value on the capital market, thus its privatization would be more profitable for the company itself, the employees and the country as a whole. Accordingly, the three basic privatization goals would be most directly met:

1. Provision of development and competitiveness of the electric energy system in the state on longer period of time;
2. Attraction of foreign investments and modern managerial experience; and
3. Maximization of ESM A.D. privatization proceeds.

Maximization of privatization proceeds is not by chance on the third place, since during the privatization process, it must not be, at any cost, insisted on and one must not advocate the wrong thesis that successful privatization is always

the one that will generate more money. Experience throughout the world shows that we must not be limited solely on maximizing privatization proceeds. On the contrary, it is much more important for the privatization process itself to lead to new quality in the entire electric energy system and its development, or as it is often called, which business plan the future strategic partner uses to enter the privatization itself. To summarize the aforementioned: It is clear that each strategic partner enters the privatization process in order to be able to return or proliferate the investment. In that case, should maximization of the proceeds from selling shares be the only objective of privatization, the strategic partner has to find a way to return such high financial resources invested in buying shares as soon as possible. It can be achieved only through strengthened managing of the new enterprise. In practice, it is most often realized in three possible manners:

- Through enormous increase of EE prices;
- Through dividing the enterprise and selling less profitable parts and through maximum exploitation of the profitable ones; and/or
- Through stopping all investments in the new enterprise until costs invested in buying the enterprise are covered.

It is obvious that none of these three manners for managing our electric energy system is either desirable or useful. On the contrary, maintaining the present level of EE prices, underpinned with appropriate financial injection in the investment cycle, company administration and management improvement, increase in savings and efficiency of the operations are exactly the activities the ESM A.D. strives for when talking about successful privatization.

ESM A.D. reorganization in a form of VIE or Holding also enables privatization by what is known as capitalization of the enterprise. Such manner of privatization has shown to be especially successful in Poland. Its essence is in the fact that in such manner of privatization minority package of enterprise shares are first sold, for instance 25 - 30%, but under specially defined rules, among which the most important is that the buyer is given priority right and possibility to manage in relatively short period of time (most often 5 years) to convert these investments in additional investment in the enterprise, thus realizing majority share votes. Two positive effects are especially achieved in such manner:

1. The enterprise in the first stage of privatization is still dominantly state-owned, thus realizing conditions to check the quality and the intentions of the strategic partner following the purchase of part of the shares i.e. following the privatization, and

2. Appropriate investments are guaranteed in the enterprise itself, which, in some cases, are of great importance and also more significant than the financial effect of the privatization.

It is evident that many other options or possibilities to be analyzed exist both for the manners of privatization and the positive and the negative effects they bring with themselves. Accordingly, broad range of ideas and thinking in this direction are useful and have to precede the final stand regarding this or that manner of ESM A.D. restructuring and privatization. No matter how related they appear to be, still restructuring and privatization are two particular and separate processes. These two processes are deeply inter-related and can be divided completely parallel, taking into account that the successfulness of the one (restructuring) leads to success of the other (privatization), and vice versa, because successful privatization is only one of the manners to verify the correct approach to restructuring

